TEAC



SERVICE MANUAL

V-670/V-570

STEREO CASSETTE DECK

Effective: September.1988 840324

5704040700

1 SPECIFICATIONS

仕様

Track System 4-Track, 2-Channel Stereo Heads - V-670 3:1 Erase, 1 Record and 1 Playback (combination) - V-570 2:1 Erase, 1 Record/Playhack Type of Tape Cassette tape C-60 and C-90 (Philips type) Tape Speed 4.76 cm/sec (1-7/8 ips) Motors 2:1 DC servo capstan motor 1 DC reel motor Wow and Flutter 0.045 % (WRMS) Frequency Response (Overall, -20 dB) - V-670 20 - 21,000 Hz (25 - 20,000 Hz ±3 dB), Metal 20 - 20,000 Hz (25 - 19,000 Hz ± 3 dB), CrO₂ 20 - 18,000 Hz (25 - 17,000 Hz ±3 dB), Normal − V-570 25 - 20,000 Hz (30 - 19,000 Hz ±3 dB), Metal 25 - 18,000 Hz (30 - 17,000 Hz ±3 dB), CrO₂ 25 - 17,000 Hz (30 - 16,000 Hz ±3 dB), Normal

Signal-to-Noise Ratio (Overall) 60 dB (3 % THD level, Weighted) 70 dB (Dolby B NR In, over 5 kHz) 80 dB (Dolby C NR In, over 1 kHz) Fast Winding Time Approximately 85 seconds for C-60 Line Input 60 mV, 50k ohms Outputs Line: 0.43 V for load impedance of 50k ohms or more Headphones: 8 ohms Power Requirements 120/220/240 V AC. 50/60 Hz (General Export model) 120 V AC, 60 Hz (U.S.A./Canada model) 220 V AC, 50 Hz (Europe mode!) 240 V AC, 50 Hz (U.K./Australia model) Power Consumption 15 W

Dimensions (W x H x D) 435 x 122 x 275.5 mm (17-1/8" x 4-13/16" x 10-15/16") Weight 4.0 kg (8.82 lbs) net

- Specifications were determined using metal tape except as noted.
- Improvements may result in specification or feature changing without notice.

NOTES:

Improvements may result in SPECIFICATIONS changes. Value of "dB" in the data refers to 0 dB (0.775 V), except where Specified.

CAUTION

△ Parts marked with this sign are safety critical components.

They must always be replaced with identical components — refer to the appropriate parts list and ensure exact replacement.

 Dolby Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.
 "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

注

- 1. 仕様は改善のため、予告なく変更することがあります。
- 2. 本マニュアルの 0 dB は0.775 V を基準としています。

注 意

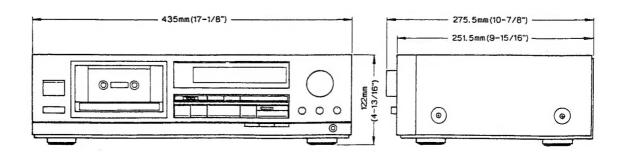
△印は安全重要部品です。交換する時は必ずティアック指定の部品を使用してください。

- ●ドルビーノイズリダクションシステムは、ドルビー研究 所からの実施権に基づき製造されています。
- ●ドルビー及び 図は、ドルビー研究所の登録商標です。

トラック形式	4トラック2チャンネル・ステレオホニック方式			
ヘッド構成	⟨V-670⟩ 消去ヘッド×1,録音×1・再生×1 コンピネーション・ヘッド ⟨V-570⟩ 消去ヘッド×1,録音/再生×1(2ヘッド)			
使 用 テ ー プ	C-60, C-90タイプ カセット・テープ			
テープ速度	4.8センチ			
モ - タ -	キャプスタン: DC サーボモーター×1 リ ー ル: DC モーター×1			
ワウ・フラッター	0.045%(W.RMS), 0.07%(W.Peak EIAJ)			
周 波 数 特 性 (総 合)	(V-670) 20Hz~21,000Hz(25Hz~20,000Hz±3dB, EIAJ): メタル 20Hz~20,000Hz(25Hz~19,000Hz±3dB, EIAJ): クローム 20Hz~18,000Hz(25Hz~17,000Hz±3dB, EIAJ): ノーマル (V-570) 25Hz~20,000Hz(30Hz~19,000Hz±3dB, EIAJ): メタル 25Hz~18,000Hz(30Hz~17,000Hz±3dB, EIAJ): クローム 25Hz~17,000Hz(30Hz~16,000Hz±3dB, EIAJ): ノーマル			
総合SN比	60dB(NR OUT, 3% THDレベル、WTD) 70dB(ドルビーB NR IN 5kHz以上) 80dB(ドルビーC NR IN 1kHz以上)			
早 巻 時 間	C-60テープで約85秒			
入 力	ラ イ ン:60mV(入力インビーダンス50kΩ以上)			
出力	ラ イ ン:0.43V(負荷インピーダンス50kΩ以上) ヘッドホン:2mW/8Ω			
電 源	100V AC, 50/60Hz			
消費電力	15W			
外 形 寸 法	435(幅)×122(高さ)×275.5(奥行)mm			
ž i	4.0kg			
付 属 品	入出力コード 2本(1組)			
付 属 品	入出力コード 2本(1組)			

※この仕様は特に表示した項目を除き、当社基準テーブを使用して測定したものです。

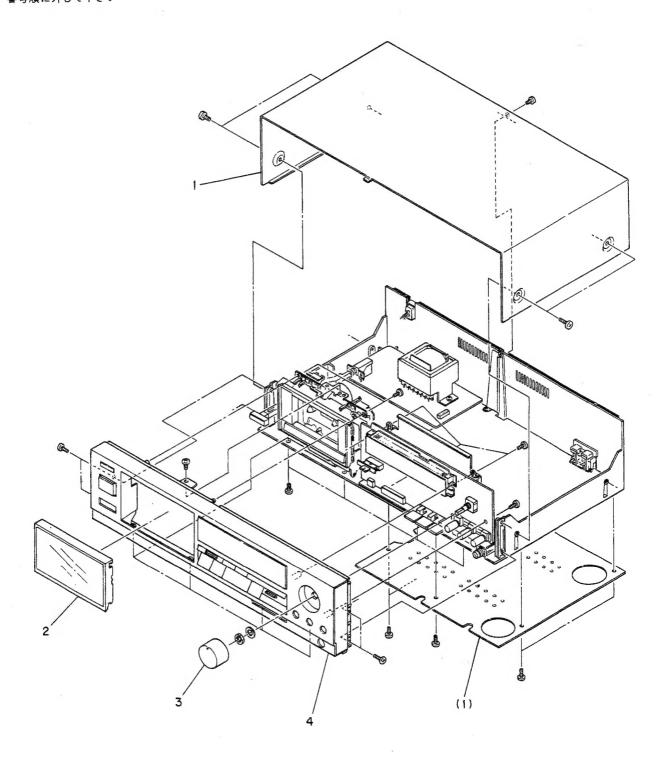
※仕様および外観は、改善のため予告なく変更することがあります。



2 REMOVAL OF EXTERNAL COMPONENTS

外装部品の外し方

Disassemble in number-order 番号順に外して下さい



3 PARTS LOCATION

部品配置図

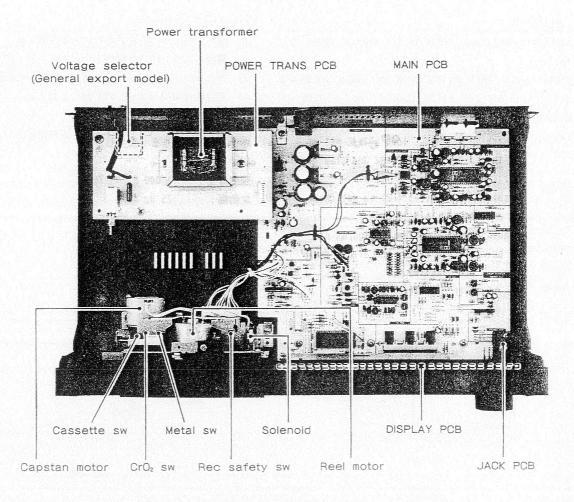


Fig. 3-1 Top view 上面図

MECHANICAL ADJUSTMENTS AND CHECKS

機構部の調整と確認

4-1 TAPE SPEED

- 1) Connect a frequency couter to the deck as shown in
- 2) Simply press POWER switch to ON to rotate the motor, then continue the motor rotaion for approx. 1 minute for warm-up.
- 3) As soon as the warm-up finishes, load a TEAC HTT-111 test tape with a 3,000 Hz test tone and play the beginning of the test tape.
- 4) Adjust the variable resistor (Fig. 4-2) to get the adjustment value of 3,000 Hz to 3010 Hz.
- 5) In play mode, check that the following figures are obtained at the beinning and at the end of the tepe.

Speed devaiation:

3,000 Hz ± 75 Hz

Speed drifting:

within 75 Hz

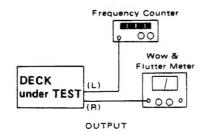


Fig. 4-1

Adj. VR Capstan motor

Fig. 4-2

4-2 WOW AND FLUTTER

(PLAYBACK METHOD)

Note: These measurements should be made at the beginning, middle, and the end of the tape.

- 1) Connect a wow-and-flutter meter to the deck as shown in Fig. 4-1.
- 2) Load and play a TEAC HTT-111 test tape.
- 3) Check that the readings on the wow-and-flutter meter are as follws.

Specifications: 0.12 % WRMS

4-1 テープ・スピード

- 1) 図4-1 のように周波数カウンタを接続する.
- 2) 電源を入れ、約 1分間ウォーミング・アップする.
- 3) テストテープ MTT-111(3kHz) を巻始めの条件で再生する.
- 4) 周波数値が 3,000~3,010 Hz となるよう, Fig.4-2 に示 す調整 VR を調整する.
- 5) 巻始めから巻終りまで再生し、速度偏差および変動幅を確 認する.

速度偏差:

3,000 Hz ±75 Hz

変動幅:

75 Hz 以内

4-2 ワウ・フラッタ (再生法)

注: テープの巻始め、中間、巻終りで測定する.

- 1) 図4-1 のようにワウ・フラッタ・メータを接続する.
- 2) テスト・テープ HTT-111 を再生する.
- 3) ワウ・フラッタ値が下の規格内に入ることを確認する.

0.12 % WRMS 規格:

4-3 REEL TORQUE

1) Load the cassette torque meter on the deck and read the pointer indication on the dial scale for each tape transport operation. The measured torque should be within the follwing specified values.

Specifications:

Take-up : 30 ~70 g ⋅ cm

(0.417~ 0.972 oz-inch)

Supply:

2.5 ~ 6 g · cm

(0.035~ 0.083 oz-inch)

F. F. /REW : 80 ~ 180 g · cm

(1.111~ 2.500 oz-inch)

4-4 VOLTAGE CONVERSION

(General Export Models only)

- 1) ALWAYS DISCONNECT THE POWER LINE CORD BEFORE HAKING THESE ADJUSTMENTS !
- 2) Locate the vlotage selector on the rear panel.
- 3) Using a regular screwdriver, turn the selector until the numerals corrsponding to the voltage requirements of your area appear.

4-3 リール・トルク

1) カセット型トルク・メータによる測定値が下表の範囲内で あることを確認する.

テイクアップ・トルク: 30 ~70 g⋅cm 2.5 ~ 6 g · cm バックテンション・トルク: 早送り/巻戻しトルク: 80 ~ 180 g·cm

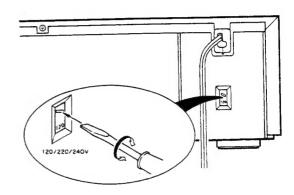


Fig. 4-3

5 ELECTRICAL CHECKS AND ADJUSTMENTS

アンプ部の確認と調整

5-1 PRECAUTIONS

- Before performing adjustments and checks clean and demagnentize the entire tape path.
- Hake sure the deck is prorerly set for the voltage in your locality.
- In general, adjustments and checks are made in the order of L-ch then R-ch. Double REF. Nos. indicate L-ch/R-ch. (Example: R51/R61)
- 4) 0 dB is referenced to 0.775 V. If an AC voltmeter that references 0 dB to 1 V is used, appropriate compensation should be made.
- The AC voltmeter used in the procedures must have an input impedance of 1 M-ohmes or more.
- 6) Note the "Deck settings" at the top of each chart. The settings apply to all check for a specific chart unless explicitly stated otherwise.
- Sinse this deck has an automatic tape selector, be sure to use test tapes that have tape position detecting holes.
- Input terminals and measuring points at each step are the same as previous step, otherwise specified.

5-1 注意

- 1) アンプ部の調整・確認の前に、テープ走行系の消磁と清掃を行なってください。
- 2) 特に指定の無い限り、調整は L ch, R ch の順序で行なってください。
 - 尚 R51/R61 のように記されている回路番号は Lch/Rchを示します.
- 3) 0 dB≈ 0.775V
- 御定に使用するレベル計の入力インピーダンスは 1 MΩ以上のものを使用してください。
- 5) 本機はテープ・セレクタ自動検出機構になっていますので テスト・テープは必ずテープ・ボジション検出孔のあるも のを使用してください。
- 6) 入力端子及び測定個所は各ステップに於いて特に明示されている場合を除き、直前のステップと同じです。

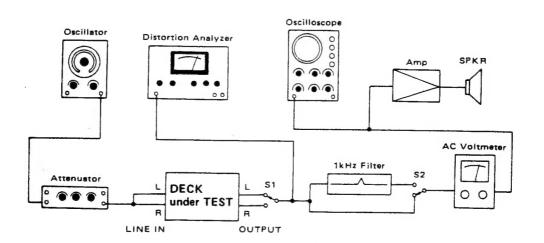
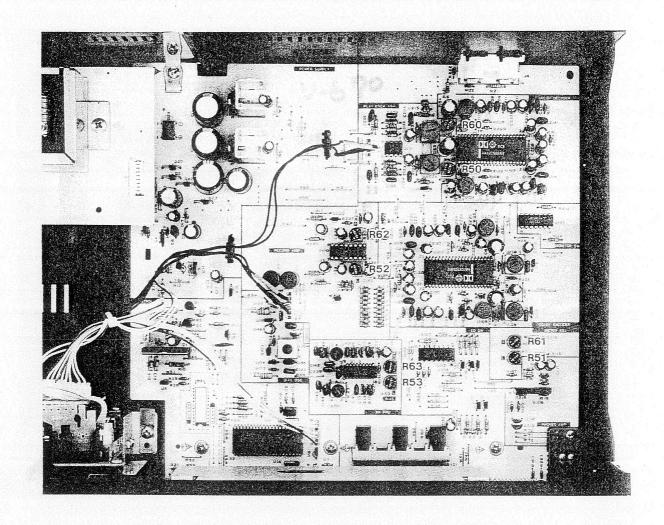


Fig. 5-1 Basic test setup 基本測定接続図

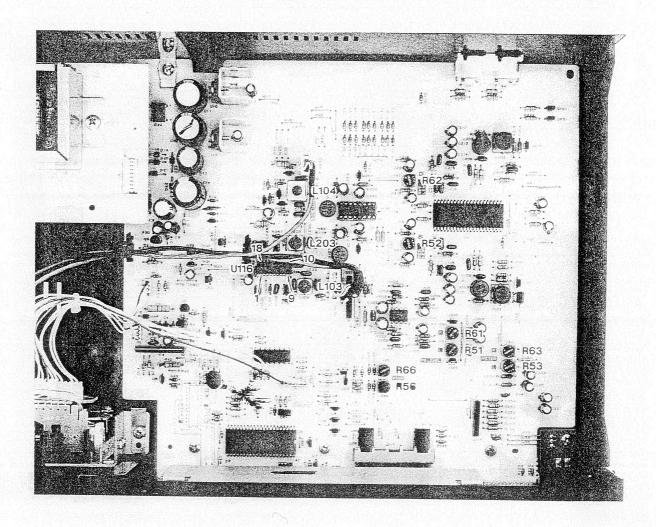
5-2. ADJUSTMENT LOCATIONS 調整個所 (V-670)



R50 / R60	Playback level	再生レベル
R51 / R61	Meter level	メータ・レベル
R52 / R62	Record level	録音レベル
R53 / R63	Bias setting	バイアス・セット

Fig. 5-2 Adjustment points 調整個所 (V-670)

5-3. ADJUSTMENT LOCATIONS 調整個所 (V-570)



R51 / R61	Playback level	再生レベル
R52 / R62	Record level	録音レベル
R53 / R63	Meter level	メータ・レベル
R56 / R66	Bias setting	バイアス・セット
L103 / L203	Step-up coil	ステップ・アップ・コイル
L104	Bias osc frequency	バイアス発振周波数

Fig. 5-3 Adjustment points 調整個所(V-570)

5-4. PLAYBACK PERFORMANCE 再生系

Deck settings

TEAC test tapes:

Mode

PLAY AOTO HONITOR SW. (V-670) TAPE OUT

HTT-150 HTT-256

: For Dolby level calibration

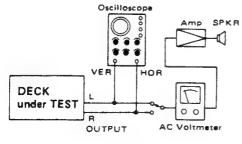
DOLBY NR sw.

HTT-356

: For playback frequency response check for NORHAL : For playback frequency response check for HETAL and CrO₂

MPX FILTER sw. (V-670) OUT HTT-5511 : For S/N check for NORHAL

				,	
ITEH 調整項目	SETTING 設 定	INPUT SIGNAL 入力信号	ADJUST (or CHECK) 調整個所	MEASURING POINT, RESULT 測定個所·調整値	
1. REC ・PLAY head azimuth 録・再ヘッド	Connection : Fig. 5-4	HTT-256 or HTT-356 (10 kHz)	Azimuth screws of R・P head 録・再ヘッドの アジマス調整ネジ V-670 Fig.5-5 V-570 Fig.5-6	OUTPUT (L/R): Maximumx output at L & R-ch's. L-R 各 ch 共 最大出力	
アジマス		HTT-150	Check	OUTPUT (L/R): Phase: within 45° Fig.5 位相: 45°以内	-7
2. Playback output level 再生出力レベル	Same as above 同上	MTT-150	V-670 R50/R60 V-570 R51/R61	OUTPUT (L/R) : -5 dB (436 mV)	
3. Meter level setting メータ・レベル セット	Same as above 同上	MTT-150	V-670 R51/R61 V-570 R53/R63	PEAK LEVEL meter (L/R) : 0 dB (RED) lit 0 dB (赤)点灯	
4. Playback frequency response 再生周波数特性	Same as above 阿上	MTT-256 (MTT-356)	Check	OUTPUT (L/R) : Standerd 規格:Fig.5-8	
5. Playback S/N ratio		MTT-5511 (fully demagnetized using bulk tape eraser)	Check	OUTPUT (L/R) : S/N 45 dB min. (120μ) 46 dB min. (70μ)	
再生 S/N 比		(バルク・イレーサで 充分消磁されたもの)		-5 dB (436 mV) is reference level 基準レベルは -5 dB (436 mV)	



Azimuth screw

位相調整ネジ

Azimuth screw 位相調整ネジ **(**

Fig. 5-5 V-670

Fig. 5-6 V-570

Fig. 5-4 Test setup for azimuth check 位相測定接続図

45°

0° (in phase) (同位相)

90°

135° 180° (out of phase)

(逆位相)



Fig. 5-7 Confirming phase relationship 位相

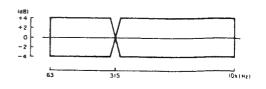


Fig. 5-8 Playback frequency response 再生周波数特性

5-5. MONITOR PERFORMANCE モニター系

Deck settings

Mode : RECORD/PAUSE
MASTER REC LEVEL cont. : Maximun
PRESET cont. L/R : REF position
AUTO HONITOR sw. (V-670) : SOURCE
DOLBY NR sw. : OUT
MPX FILTER sw. (V-670) : OUT

	ITEM 調整項目	SETTING 設 定	INPUT SIGNAL 入力信号	ADJUST (or CHECK) 調整個所	MEASURING POINT, RESULT 測定個所・調整値	REMARKS 備 考
6.	Min. LINE input level ライン 最小入力レベル	Connection : Fig. 5-1	LINE IN (L/R) : 400 Hz / -19 dB (86.9 mV)	Check	OUTPUT (L/R) : -5 dB ±3 dB (308 mV ~ 615 mV)	
7.	7. Specified LINE input level	Connection : Fig. 5-1	LINE IN (L/R) : 400Hz/-9dB(275mV)	PRESET cont. (L / R)	OUTPUT (L/R) : -5 dB (436 mV)	
	LINE 規定入力 レベル	connection . rig. 3-1	After adjusting. do not move the PRESET cont. (L/R).(Specific position) 調整後は PRESET つまみを動かさないこと.			
8,	Heter level メータ・レベル	Connection : Fig. 5-1	LINE IN (L/R) : 400Hz/-9dB(275mV)	Check	REAK LEVEL meter (L/R) : 0 dB (RED)	
9.	PHONES output level PHONES 出カレベル	Connection : Fig. 5-9 PHONES LEVEL cont. : Max.	LINE IN (L/R) : 400Hz/-9dB(275mV)	Check	PHONES: At each channe! 各チャンネルで -15 dB ±3 dB (97.5 mV~ 195 mV)	8Ω load

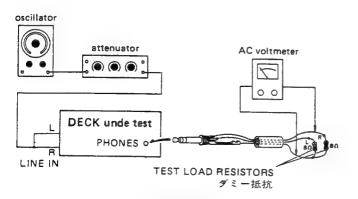


Fig. 5-9 Test setup for PHONES check ホーン出力測定接続図

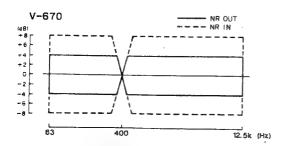


Fig. 5~11 Overall frequency response 錄再周波数特性

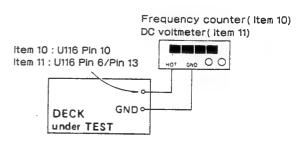


Fig. 5-10 Test setup for bias osc. frequency adjustment バイアス発振周波数調整用接続図

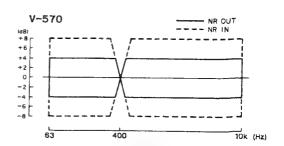


Fig. 5-12 Overall frequency response 録再周波数特性

5-6. RECORDING PERFORMANCE 经音系

Deck settings

Mode : Rec/Play (Item 10,11) : Record then Playback (Item 12~ 22)

MASTER REC LEVEL cont. : Haximum PRESET (L/R) cont. : Specified position(規定位置) AUTO HONITOR sw. (V-670) : TAPE

DOLBY NR SW.

: OUT MPX FILTER sw. (V-670) BIAS FINE cont.

: OUT : : REF (center) position

TEAC recording test tapes HTT-5571 : For HETAL HTT-5561 : For CrO₂ HTT-5511 : For NORMAL

	DINO	INE CONT. : KEF (CO	nter) position		nii-55[i : F0i'	ITOTA N.L
	ITEM 調整項目	SETTING 設 定	INPUT SIGNAL 入力信号	ADJUST (or CHECK) 調整個所	MEASURING POINT, RESULT 選定個所·調整値	REMARKS 備 考
10.	Bias osc frequency バイアス 発振周波数 (V-570 only)	Connection : Fig.5-10 Tape : MTT-5571 Mode : REC / PLAY	No signal	L104	U116 pin10 : 100 kHz ±2 kHz	
11.	Step-up coil ステップ・アップ			L103/L203	U116 pin 6 / pin 13 : ** Minimum DC voltage DC 電圧長小値	k
	ステップ・アップ コイル (V-570 only)	Same as above 同 <u>上</u>	No signal	set to the max	ng of the voltmeter is negati limum negative voltage. ス電圧を指示する場合はマイナン する。	
12.	Record bias バイアス・セット	Connection : Fig. 5-1 TAPE : MTT-5571 BIAS FINE cont.: REF position	LINE IN (L/R): 400 Hz and 10 kHz alternately/ 交互信号/ -42 dB (6.15 mV)	V-670 R53/R63 V-570 R56/R66	OUTPUT (L/R) Equal output level (recor playback) between 400 Hz 400 Hz と10 kHz の録再に くなること.	and 10kHZ.
13.	BIAS FINE	Same as above	LINE IN (L/R) : 10 kHz / -42 dB (6.15 mV)	BIAS FIME cont. Min. ← →M ax.	OUTPUT (L/R): Check Recorded signal level v 録音された信号のレベル3 5 dB minimum (V-670) 3 dB minimum (V-570)	
		After checking, set the BIAS F チェック後 BIAS FINE つまみを			•	
14	Record level	Connection : Fig.5-1 TAPE : MTT-5511	LINE IN (L/R) :	R52 / R62	Output (L/R) : Output level (record and 録再出力 -8 dB (playbak) 300 mV)
14.	録音レベル	Connection : Fig.5-1 TAPE : MTT-5571, MTT-5561 DOLBY NR sw. : IN / OUT, B / C	400 Hz / -12 dB (195 mV)	Check	Output (L/R): Output level (record and 録再出力 -10 dB~ -6 dB (245 mV-	
15.	Total harmonic distortion 総合歪率	Connection : Fig.5-1 TAPE : MTT-5571 TAPE : MTT-5561 TAPE : MTT-5511	LINE IN (L/R) : 400 Hz / -12 dB (195 mV)	Check -	OUTPUT (L/R) : 2.5 % or less 2.5 % 以下	
16.	Overall frequency response 録再周波数特性	Connection : Fig.5-1 TAPE : MTT-5571 TAPE : MTT-5561 TAPE : MTT-5511	LINE IN (L/R) : 40 Hz ~12.5 kHz/ -42 dB (6.15 mV)	Check	OUTPUT (L/R) : Standard Fig.5-11 (V-67 Standard Fig.5-12 (V-57	

	ITEM 調整項目	SETTING 設 定	INPUT SIGNAL 入力信号	ADJUST (OF CHECK) TEE(国所	MEASURING POINT, RESULT 測定個所・調整値
17.	Overal! S/N ratio 総合S/N 比	Connection : Fig. 5-1 Tape : MTT-5571	No signal	Check	OUTPUT (L/R) : HETALL 45 dB min. CrO2 45 dB min. NORMAL 44 dB min.
	発振周波数 (V-570 only)	Tape : MTT-5561 Tape : MTT-5511	無信号		400 Hz / -8 dB (300 mV) is the reference level. 基準レベルは 400 Hz / -8 dB (300 mV)
18.	Erase efficiency	Connection : Fig.5-1 but engage 1-kHz filter 1-kHz フィルター使用 Tape : MTT-5571	LINE IN (L/R) 1 kHz / +1 dB (0.869 V)	Check	OUTPUT (L/R) : 65 dB min. ratio
	消去効果	Record a 1 kHz signal. Erase t between the 1 kHz portion and 録音部分を再生したときのレベル	the erased portion.		and play to find the difference の出力レベルとの差を測定.
19.	REC MUTE	Same as above 同 止	Same as above 同上	Check	OUTPUT (L/R) : 65 dB min. ratio (V-670) 63 dB min. ratio (V-570)
	function REC MUTE 効果	Record a 1 kHz signal. Push RE portion and the "rec mute" por 1 kHz 信号を録音し,途中で REC このテープを再生し,1 kHz 部分	tion. CHUTE 釦を押して無信号	 録音部 分を作る。	find the difference between the 1-kHz
20.	Channel separation	Same as above 同上 .	LINE IN: Lch 1-kHz/-9dB (275mV) Rch Nosignal 無信号	Check	OUTPUT (R) : 30 dB min. ratio
	チャネル・セパレーション	Set the deck to record mode. r (L-ch) and "no signal" porti 録音後,再生して 1-kHz 録音部	on (R-ch).		tween the 1-kHz recorded portion 出力レベル差を測定.
		Change the above connection ar L-ch と R-ch を入れ替えた場合			
21.	21. Adjucent track crosstalk トラック間	Connection : Fig.5-1 but not connect LINE (L) and output (L) L ch の入出力の接続不要	LINE IN: Lch No signal 無信号 Rch 125Hz/-9dB (275mV)	Check	OUTPUT (R): 40 dB min. ratio
	クロストーク	Record a 125 Hz signal on R-ch Check leakage level against th R-ch トラックに 125 Hz 信号を 次にテープを反転し、再生したと	e output reference of 録音し、その再生出力を	previously recorde 基準レベルとする.	d portion.

PARTS LIST SECTION

NOTES:

- As regards the resistors and capacitors, refer to the circuit diagrams and the PCB ass'y drawings included in this brochure.
- Parts marked with A this sign are safety critical components. They must always be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.

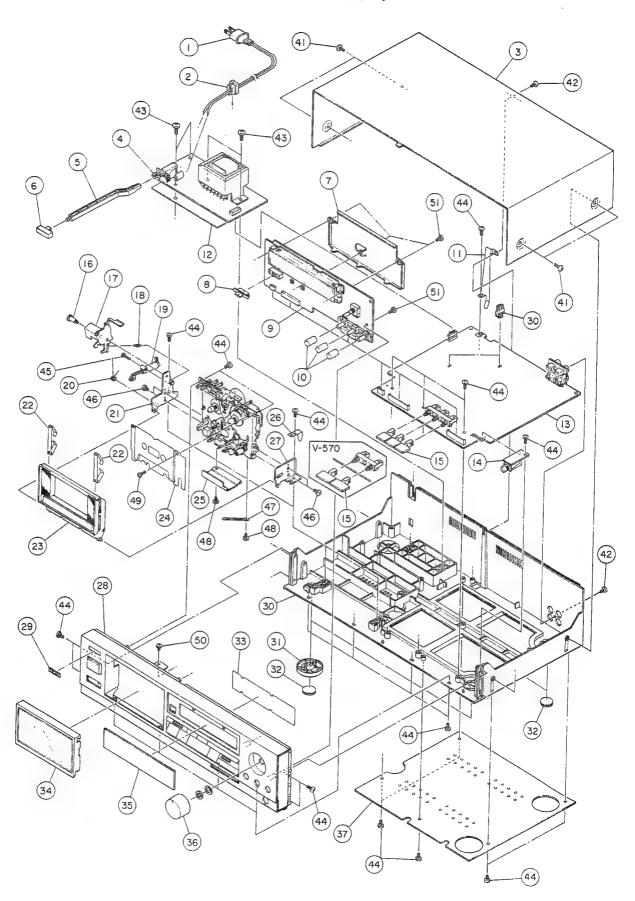
注 意

- 標準の抵抗,コンデンサーは省略してあります。回路図及び基板図を参照してください。
- 2. A 印は安全規格重要部品です。交換するときは必ずティアック指定の部品を使用して下さい。

6 EXPLODED VIEWS AND PARTS LIST

分解図とパーツ・リスト

EXOLODED VIEW - 1



EXPLODED VIEW-1

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1-1		CORD, AC UL SPT-1 [US, C, GE] CORD, AC CEE CLASS-2 [E] CORD, AC [UK]	
1- 2 1- 3 1- 4	*5801 27500 *5200257300 *5200257310 *5200257320 *5200257330 *5200257340	BUSHING 2271 BONNET P.TRANS POB ASSY [J] P.TRANS PCB ASSY [US,C] P.TRANS PCB ASSY [GE] P.TRANS PCB ASSY [E] P.TRANS PCB ASSY [UK] P.TRANS PCB ASSY [A]	Ref. pages 21 & 24
1- 5 1- 6	*5801125100 5800752 3 00		
1- 7 1- 8 1- 9	5801127000	DISPLAY PCB ASSY (V-670) DISPLAY PCB ASSY (V-570)	Ref. pages 19 & 22 Ref. pages 20 & 23
1-11 1-12 1-13	*5801125900 *5801149800 *5200257000 *5200257500 *5200257200 *5200257700	SHEET, TRANSFORMER [US] MAIN PCB ASSY (V-670) MAIN PCB ASSY (V-570) JACK PCB ASSY (V-670)	Ref. pages 19 & 22 Ref. pages 20 & 23 Ref. pages 19 & 22 Ref. pages 20 & 23
1-15 1-16 1-17	5801 24700 5801 24600 *5801 25300 *5801 26300	BUTTON(A), PUSH (V-570) SCREW,	
1-18 1-19 1-20 1-21 1-22	*5801125800 5730030600 *5800838300 *5801126400 *5800603801	DAMPER F077-016	
1-23 1-24 1-25 1-26	5801127200 5801127100 *5801142000 *5801124500 *5801125000	SHIELD PLATE, HEAD	
1-27 1-28 1-29 1-30	*580 26900 *580 27700 *580 27600 *5720 75500	PANEL ASSY(B), FRONT (V-670) PANEL ASSY(A), FRONT (V-570)	
-3 -32 -33 -34 -35	*5800620400 *5801124900	FILTÉR, DISPLAY LID, CASSETTE	
1-36 1-37	580 26800 *580 27400	KNOB(2) COVER, BOTTOM	

[US]:U.S.A. [E]:EUROPE [UK]:U.K. [C]:CANADA [GE]:GENERAL EXPORT [J]:JAPAN [A]:AUSTRAL[A

EXPLODED VIEW-I

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1-41	*5800758000	SCREW, M3XIO P TITE(SP)	
1-42	*5783543010	SCREW, BIND T TITE M3X10(BLK NI)	ł
1-43	*5783604012	SCREW, BIND P TITE M4X12	
1-44	*5783603010		
1-45	*5783072012	SCREW, PAN S TITE M2X12	
1-46	*5783003004	SCREW, PAN S TITE M3X4	
1-47	*5786713000	CLIP, HARNESS 3.0X9.1X50	
1-48		SCREW, BIND BR TITE M3X6	
1-49	*5783542612	SCREW, BIND P TITE M2.6X12(BLK NI)	1
1-50	*5730017600	SCREW, BIND BR TITE M3X6	
1-51	*5783603012	SCREW, BIND P TITE M3X12	

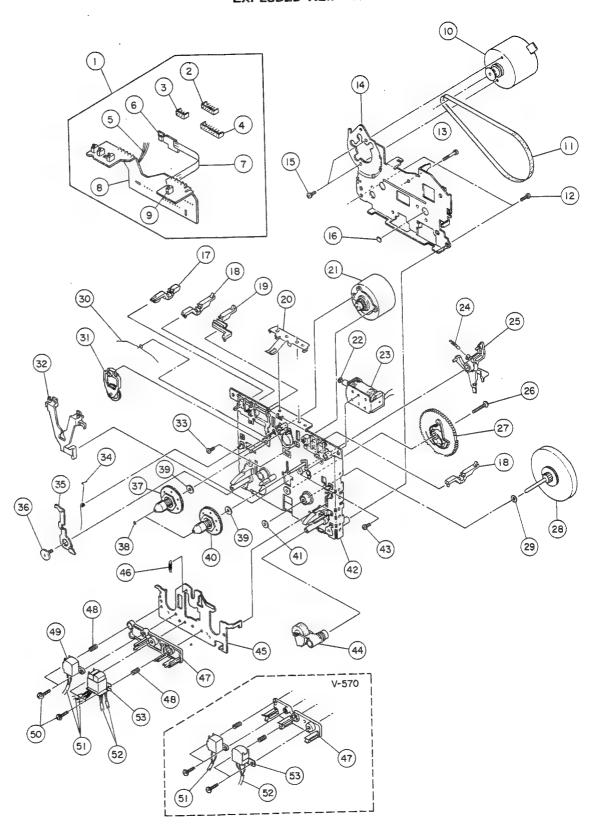
INCLUDED ACCESORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS	
	*5700106500			

[US]:U.S.A. [E]:EUROPE [UK]:U.K. [C]:CANADA [GE]:GENERAL EXPORT [J]:JAPAN [A]:AUSTRALIA

Parts marked with *require longer delivery time.

EXPLODED VIEW - 2



EXPLODED VIEW-2

DEE	D4070 110					
REF. NO.	PARTS NO.	DESCRIPTION			REMARKS	
2- 2 2- 3 2- 4	*5761769400 *5761769600 *5761749300 *5761749100 *5761769700		F067-110 UY15B-16			
2-7	*5761748800 *5761748900 *5761769500 5761748700 5761747800	GP 2S09B JUMPER WG46V-06 BOARD SW.,PUSH MOTOR,DC W/PULLE	FP17E-71			
2-13 2-14	5761769200 *5761690900 *5761769300 *5761768900 *5761746400	BELT, MAIN SCREW, WAVE 2.6X SCREW, S TITE M2 F/W BKT SCREW, PAN 2.6X3	.6X23.5 UG17H-11 FC47D-13	ı		
2-17 2-18 2-19	*576 747700 *576 749500 *576 749600 *576 749700 *576 750200	SPACER LEVER, PACK LEVER, RECORD LEVER, METAL SPRING, CASSETTE	PRESS			
2-21 2-22 2-23 2-24 2-25	5761745800 5761746300 5761746200 *5761768800 5761769000	MOTOR, REEL DC PIN, SOLENOID PKA16146 SPRING, PLAY ARM ARM(F), PLAY FD38	FK22G-14 M-22			
2-27 2-28 2-29		SCREW, TAP TITE CAM GEAR(F) F/W ASSY POLYSLIDER SPRING, HOLD	2X15 UG17L-11 FD38P-16 FJ111-30			
2-33 2-34	5761745300 *5761745700 *5761745900 *5761768600 *5761768500	IDLER ASSY HOLD LEVER(C) SCREW, PAN 2.6X SPRING(L), EJECT ARM(L), EJECT FC	FK22P-16			
2-37 2-38	*5761746700 5761773700 5761686300 *5761745600 *5761745500	SCREW, REEL TABLE ASSY REEL TABLE ASSY POLYSLIDER POLYSLIDER	(Y-670) (Y-570)			
2-42	5761686400 *5761689700 *5761769800 5761768300	REEL TABLE ASSY, WASHER, OIL SEAL CHASSIS, MECHANIS SCREW, PAN 2.6X4 PINCH ROLLER ASSY	FJ141-11 SM F112-110 ZN FG114-15			
2-46 2-47	*5761768100 *5761744800 *5761770400 *5761768100 *5761767500	BASE, HEAD SPRING, HEAD BASE SPACER, 3 HEAD BASE, HEAD SPRING, AZIMUTH	FC38N-D3 E FD44N-11 (V-670) FC38N-D3 (V-570) FK21U-11			
2-51	5761767900 *5761767400 *5761770300 *5761767800 *5761770100	ERASE HEAD SCREW, F LOCK CONNECT., WIRE CONNECT., WIRE CONNECT., WIRE	FU!92-11 FG!37-18 WH5!L-05 (V-670) WH47G-07 (V-570) WH5!K-03 (V-670)			
	*5761767600	CONNECT., WIRE	WH47F-06 (V-570)			

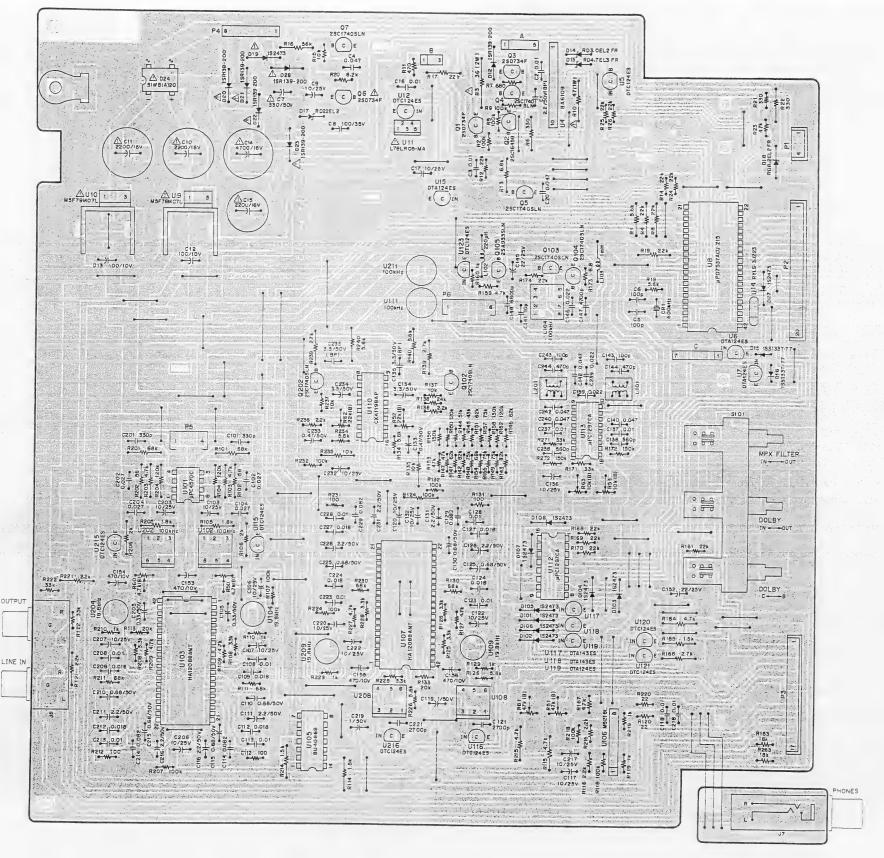
7 PC BOARDS AND PARTS LIST

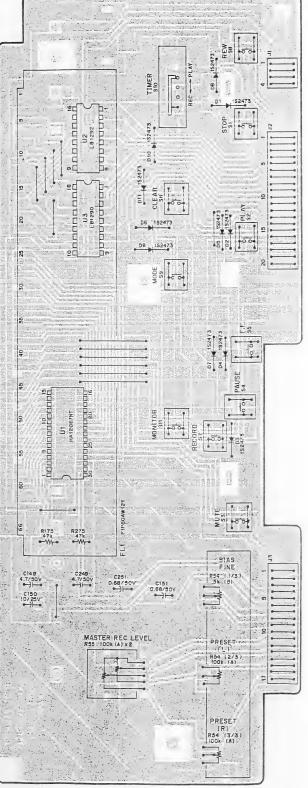
V-670

基板図とパーツ・リスト

MAIN PCB ASSY

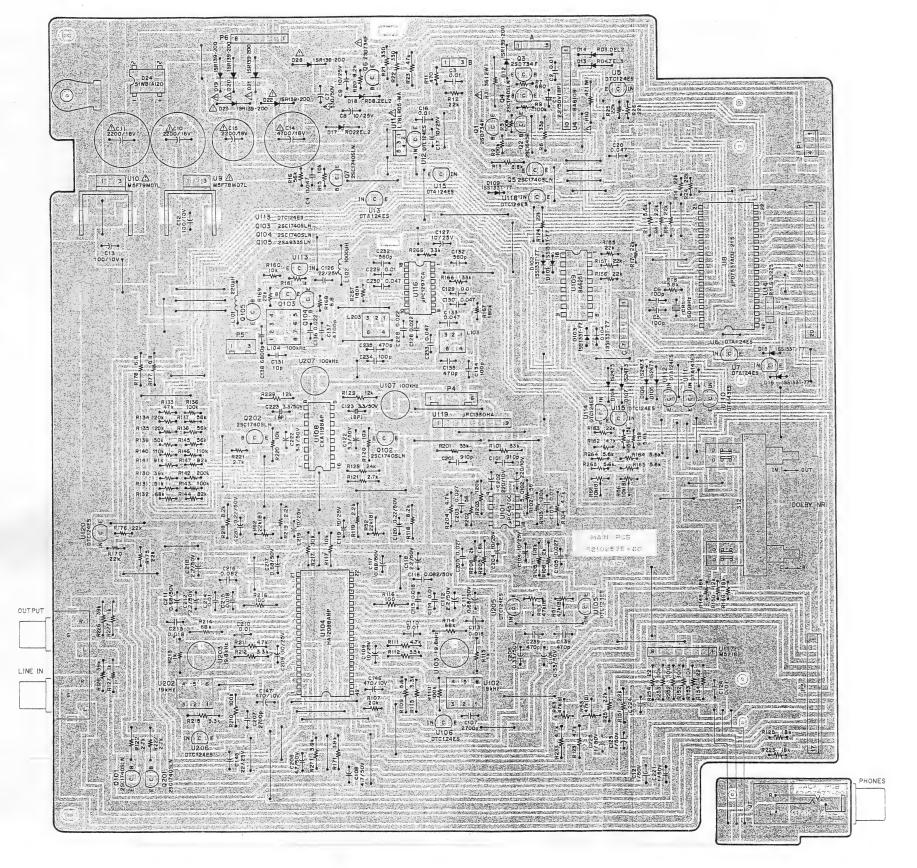
DISPLAY PCB ASSY



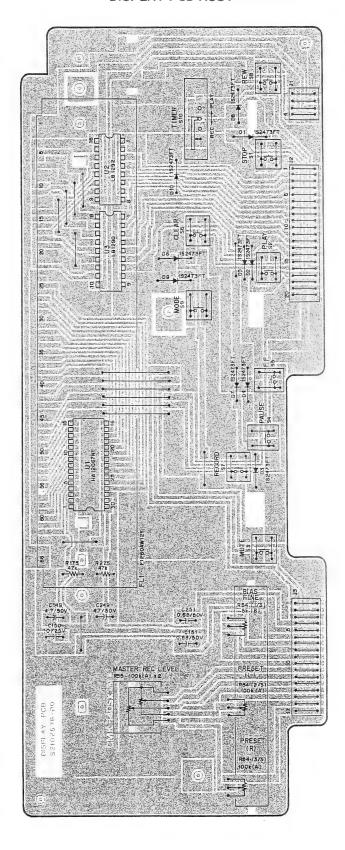


JACK PCB ASSY

MAIN PCB ASSY

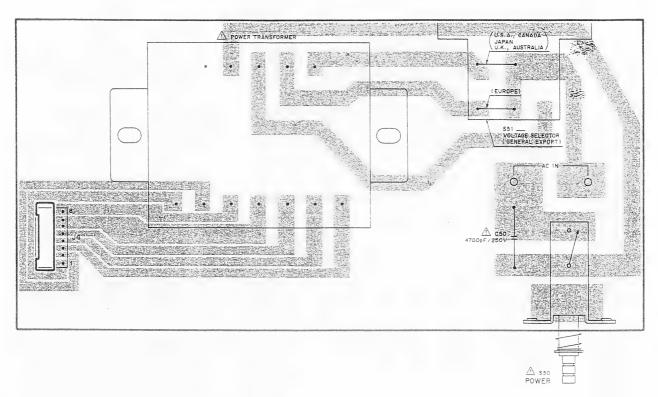


DISPLAY PCB ASSY



JACK PCB ASSY

POWER TRANS. PCB ASSY



NOTES

- 1. PC boards are shown viewed from foil side.
- 2. Resistor values are in hms (k=kilo-ohms M=megohms).
- 3. All capacitor values are in microfarads (p=picofarads).

注

- 1. 基板図はパターン面が示されています。
- 2. 抵抗の単位は $\Omega(k = k \Omega, M = M \Omega)$ です。
- 3. コンデンサの単位は μ F (pF)です.

MAIN PCB ASSY (V-670)

REF.NO. PARTS NO. DESCRIPTION *5200257000 MAIN PCB ASSY (V-670) *5210257000 MAIN PCB (V-670) 5800990100 HEAT SINK 5783603008 SCREW, BIND P TITE M3X8 CONDENSER CC 16V 10000PF 10% C2 12907112 CONDENSER CC 16V 10000PF 10% C3 12907112 5173435000 C., CERAMIC 0.047UF 50V Z C4 -C 6 12907088 CONDENSER CC 50V 100PF 5% C5 C.,ELEC. 4700UF 16V C.,ELEC. 2200UF 16V M AS VF △5260428110 △5260427010 C15 C., POLY. 560PF/100V J VT C138-C238 5263107220 C., CERAMIC TOPF 50V D VFT 5173445000 C141 C., POLY. 100PF/100V J VT C143-C243 5263105420 C148 5263102520 C., POLY. 0.0068UF 100V J VT OSC., CERAMIC 600KHZ CRI 5347011200 DIODE, 182473 DIODE, 18R139-200 T-31 D101-D108 5224012920 5224017120 D12 DIODE, ZENER RD4.7EL3 FR 5224573001 D13 DIODE, ZENER RD3.0EL2 FR DIODE, ISSI33T-77 DIODE, ZENER RD22EL2 FR 5224571801 5224015020 D15 -D 16 5224577901 D 17 5224574701 DIODE, ZENER RD8.2EL2 FR D 18 D19 5224012920 D10DE, 1S2473 DIODE, ISR139-200 T-31 D20 -D 23 \(\D 5224017120 \) △5228010700 SILION STACK, SIWB8(A)20 D24 D10DE, 1S2473 D27 5224012920 DIODE, ISRI39-200 T-31 JACK, PIN 4P D28 △5224017120 5330509600 5286025700 COIL,STEP UP 5286031000 COIL,CHOKE 220UH LAL04KB 5286031800 COIL,CHOKE 1000UH LAL04NA L101 L201 L 102 L103 COIL, OSC TOOKHZ 5286035900 L104 РΙ 5336279400 PLUG, CONNECT 4P PLUG, CONNECT 20P IL-SDA-P PLUG, CONNECT 17P IL-SDA-P 5336281000 P2 P3 5336280700 PLUG, CONNECT TYC-B08P-11 PLUG, CONNECT B04B-XH-A P4 5334055100 5336245400 P5 5336245600 PLUG, CONNECT BO6B-XH-A P6 5231761300 TRANSISTOR 2SD734F 01 TRANSISTOR 2SC-1645 5145133000 Q2 , Q -Q TRANSISTOR 2SD734F Q3 6 △5231761300 5230781120 TRANSISTOR 2SCI740SLN Q7 TRANSISTOR 2SCI740SLN 5230781120 Q102,Q202 5230781120 TRANSISTOR 2SC1740SLN TRANSISTOR 2SC1740SLN Q103-Q104 5230781120 TRANSISTOR 2SA933SLN Q 105 5230019020 INCOMBUSTBLE 2W 36 OHM J INCOMBUSTBLE IW 47 OHM J △5241284210 R3 R 10 Δ5241274510 R., TRIMMER 4.7KB 5280021100 R50 R60 R., TRIMMER, 47KB H. R., TRIMMER 22KB H. R51 R61 5280021700 R52 R62 5280021500 R., TRIMMER IOKB H. 5280021300 R53 R63 SW., PUSH 3GANG 2-2N 5300051800 S 101

MAIN PCB ASSY (V-670)

REF.NO.	PARTS NO.	DESCRIPTION
U4 U5 U6 U7 U8	52204 1500 5232255720 5232254820 5232254820 5220813700	IC., BA6109, TRANSISTOR, DIGITAL TRANSISTOR, D
• •	△5220432200 △5220432900 △5220439800 5232255720 5242122800	IC.,M5F78M07L IC.,M5F78M07L IC.,L78LR05 TRANSISTOR,DIGITAL DTC124ES R.,ARRAY RYLS-3J223
U15 U101 U102,U202 U103 U104,U204	5220440100	TRANSISTOR, DIGITAL DTA124ES IC., UPC4570C FILTER, LOWP. 10 OKHZ IC., HA12088ANT FILTER, LOWPASS 19.8KHZ
U105 U106 U107 U108,U208 U109,U209		IC.,BU4066B IC.,M5218L IC.,HA12088ANT FILTER,LOWPASS MPX R-888X FILTER,LOWPASS 19.8KHZ
U110 U111,U211 U112 U113 U115,U215		IC.,CXAII98AP FILTER,LOW PASS 100KHZ TRANSISTOR ARRAY BA6251 IC.,UPC1297CA TRANSISTOR,DIGITAL DTC124ES
UI 16,U216 UI 17-UI 18 UI 19 UI 20-UI 21 UI 23		TRANSISTOR, DIGITAL DTC124ES TRANSISTOR, DIGITAL DTA143ES TRANSISTOR, DIGITAL DTC124ES TRANSISTOR, DIGITAL DTC124ES TRANSISTOR, DIGITAL DTC124ES

DISPLAY PCB ASSY (V-670)

REF.NO.	PARTS NO.	DESCRIPTION	
	*5200257100 *5210257100 5800809101 5224012920 5347004000	HOLDER, METER	
J2 J3 R54	5336281400 5336283000 5336282700 5283506800 5282414800	SOCKET, CONNECT 20P IL-SDA-S SOCKET, CONNECT 17P IL-SDA-S 3 BLOCKVR 9,100KAX2,5KB	
S10 S11	5302103200 5300916400 5302103200 5220041000 5232252800	SW.,TACT KHH10910 IC.,HA12067NT	
U3	5232252900	TRANSISTOR ARRAY LB1290	

MAIN PCB ASSY (V-570)

REF.NO.	PARTS NO.	DESCRIPTION
	*5200257500 *5210257500 5800990100 5783603008 5330509600	MAIN PCB ASSY (V-570) MAIN PCB (V-570) HEAT SINK SCREW, BIND P TITE M3X8 JACK,PIN 4P
C2 C3 C5 -C 6 C7	5555590000 5173433000 12907112 12907088 \$5260425510	PLATE_PCB EARTH A C.,CERAMIC 0.01UF 50V T CONDENSER CC 16V 10000PF 10% CONDENSER CC 50V 100PF 5% C.,ELEC. 330UF 50V M AS VT
C14 4 C15 4	\$5260308600 \$5260428110 \$5260427010 \$12907112 \$5263107720	C.,ELEC. 2200UF/16V M PS C.,ELEC. 4700UF 16V C.,ELEC. 2200UF 16V M AS VF CONDENSER CC 16V 10000PF 10% C.,POLY. 910PF/100V J VT
CRI DIOI-DIO4 DIO5-DIO8 DIO9 DI2	5347011200 5224015020 5224012920 5224015020 5224017120	OSC., CERAMIC 600KHZ DIODE, ISS133T-77 DIODE, ISS2473 DIODE, ISS133T-77 DIODE, ISR139-200 T-31
D13 D14 D15 -D16 D17 D18	5224573001 5224571801 5224015020 5224577901 5224574701	DIODE, ZENER RD4.7EL3 FR DIODE, ZENER RD3.0EL2 FR DIODE, ISSI33T-77 DIODE, ZENER RD22EL2 FR DIODE, ZENER RD8.2EL2 FR
D24 D28	△5224017120 △5228010700 △5224017120 5286031000 5286031800	COIL, CHOKE 220UH LALO4KB
L103,L203 L104 P1 P2 P3	5286036100 5286035900 5336279400 5336281000 5336280700	COIL,OSC TOOKHZ PLUG,CONNECT 4P PLUG,CONNECT 20P IL-SDA-P
P4 P5 P6 Q1 Q2	5336245600 5336245300 5334055100 5231761300 5145133000	PLUG, CONNECT B03B-XH-A PLUG, CONNECT TYC-B08P-11 TRANSISTOR 2SD734F
Q3 Q4 -Q 5 Q6 Q7 Q101,Q201	△5231761300 5230781120	TRANSISTOR 2SC1740SLN TRANSISTOR 2SD734F TRANSISTOR 2SC1740SLN
Q102,Q202 Q103,Q104 Q105 R3 R10		TRANSISTOR 2SCI740SLN TRANSISTOR 2SA933SLN INCOMBUSTBLE 2W 360HM J FF
R51 R61 R52 R62 R53 R63	5280021700 5280021500 5280021700	R., TRIMMER 22KB H.

MAIN PCB ASSY (V-570)

REF.NO.	PARTS NO.	DESCRIPTION
R56 - R66 S12 U4 U5 U6 -U 7	5280021300 5300051700 5220411500 5232255720 5232254820	R., TRIMMER 10KB H. SW., PUSH 2GANG 2-2N IC., BA6109 TRANSISTOR, DIGITAL DTC124ES TRANSISTOR, DIGITAL DTA124ES
U10 4	5220813700 5220432200 5220432900 5220439800 5232255720	IC.,UPD7537ACU IC.,M5F78MO7L IC.,M5F78MO7L IC.,L78LR05 TRANSISTOR,DIGITAL DTC124ES
U13 U14 U15 U101 U102,U202	5232254820 5242122800 5232254820 5220439600 5292806800	TRANSISTOR, DIGITAL DTA124ES R., ARRAY RYLS-3J223 TRANSISTOR, DIGITAL DTA124ES IC., UPC4570C FILTER, LOWPASS 19KHZ
U103,U203 U104 U105,U205 U106,U206 U107,U207	5292805200 5220440100 5232255720 5232255720 5292805900	FILTER, LOWPASS 19.8KHZ IC., HA12088ANT TRANSISTOR, DIGITAL DTC124ES TRANSISTOR, DIGITAL DTC124ES FILTER, LOW PASS 100KHZ
U 108 U 109 U 1 10, U 1 1 1 U 1 13-U 1 15 U 1 16	5220439700 5232250900 5232253020 5232255720 5220430400	iC.,CXAI198AP TRANSISTOR ARRAY BA6251 TRANSISTOR DIGITAL DTA143ES TRANSISTOR,DIGITAL DTC124ES IC.,UPC1297CA
U117 U118,U120 U119	52204 16200 5232255720 5220439900	

DISPLAY POB ASSY (V-570)

REF.NO.	PARTS NO.	DESCRIPTION
D1-D10 FL1	*5200257600 *5210257600 5800809101 5224012920 5347004000	DISPLAY PCB ASSY (V-570) DISPLAY PCB (V-570) HOLDER, METER DIODE, 182473 FL DISPLAY, FIP60AWI2Y
JI J2 J3 R54 R55	5336281400 5336283000 5336282700 5283506800 5282414800	SOCKET, CONNECT 4P SOCKET, CONNECT 20P IL-SDA- SOCKET, CONNECT 17P IL-SDA- 3 BLOCKVR 9, 100KAX2, 5KB ISIUVR 14, 100KAX2
\$1-\$9 \$10 U1 U2 U3	5302103200 5300916400 5220041000 5232252800 5232252900	TRANSISTOR ARRAY LB1292

P.TRANS PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*5200257300 *5200257310 *5200257320 *5200257330 *5200257340	P.TRANS PCB ASSY [J] P.TRANS PCB ASSY [US,C] P.TRANS PCB ASSY [GE] P.TRANS PCB ASSY [GE]
	△ 5320050800 △ 5320050900	POWER TRANS PCB P. TRANSFORMER [J] P. TRANSFORMER [US,C] P. TRANSFORMER [GE] P. TRANSFORMER [E,UK,A]
	5327007200 \$\Delta 5128027000 \$\Delta 5350010800 \$\Delta 5350011700 \$\Delta 5128047000 \$\Delta 5350008300	
050 J4 650 65 I	△5267704000 5334049700 △5300051900 △5332019900	SPARK, KILLER 0.0047UF250V SOCKET, CONNECT. 8P SW., PUSH 1-2 VOLTAGE SELECTOR 1-3 FS908E [GE]

JACK PCB ASSY (V-670)

REF.NO.	PARTS NO.	DESCRIPTION
J7	*5200257200 *5210257200 5330011600	JACK PCB ASSY (V-670) JACK PCB (V-670) JACK, 3P YKB21-5010

JACK PCB ASSY (V-570)

REF.NO.	PARTS NO.	DESCRIPTION	
	*5200257700 *5210257700 5330011600	JACK PCB ASSY (V-570) JACK PCB (V-570) JACK, 3P YKB21-5010	

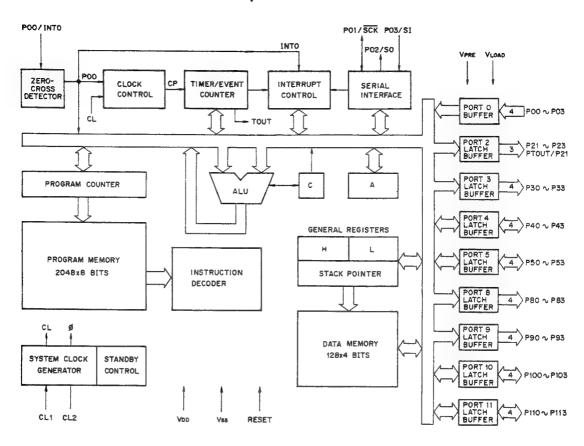
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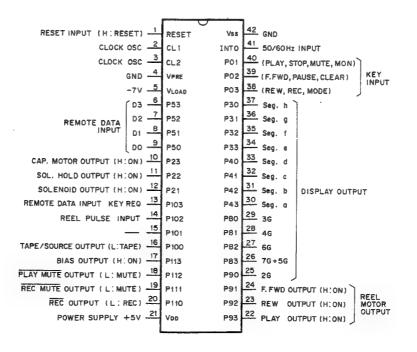
Parts marked with *require longer delivery time.

8 IC BLOCK DIAGRAMS

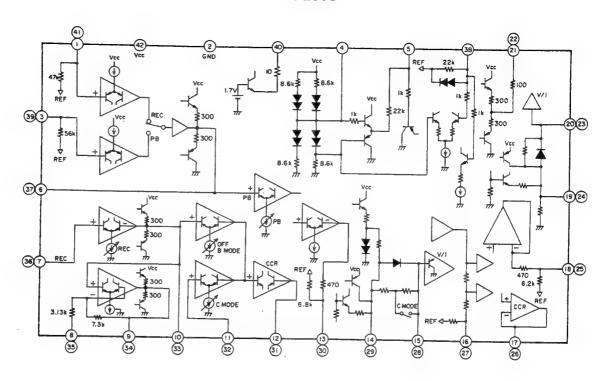
ICブロック・ダイヤグラム

µPD7537ACU

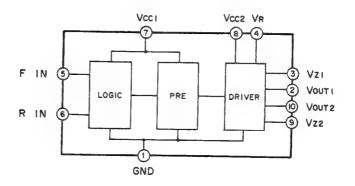




HA12088



BA6109



FIN	RIN	Vout 1	Vout 2
Н	н	L	L
L	Н	L	Н
Н	L	н	L
L	L	OPEN	OPEN



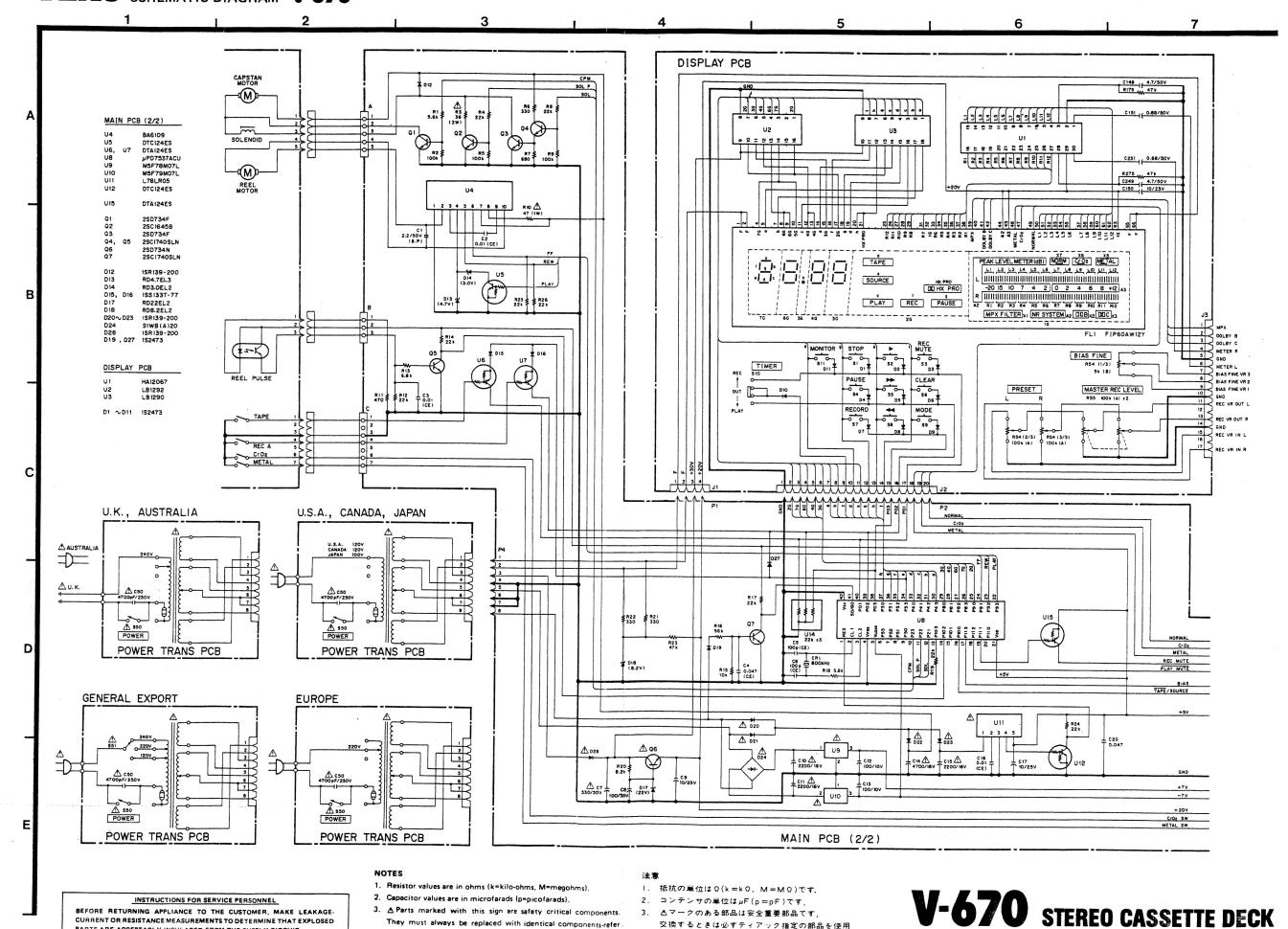
してくたさい。

to the appropriate parts list and ensure exact replacement.

PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPLOSED

PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.



△マークのある部品は安全重要部品です。

してくたさい。

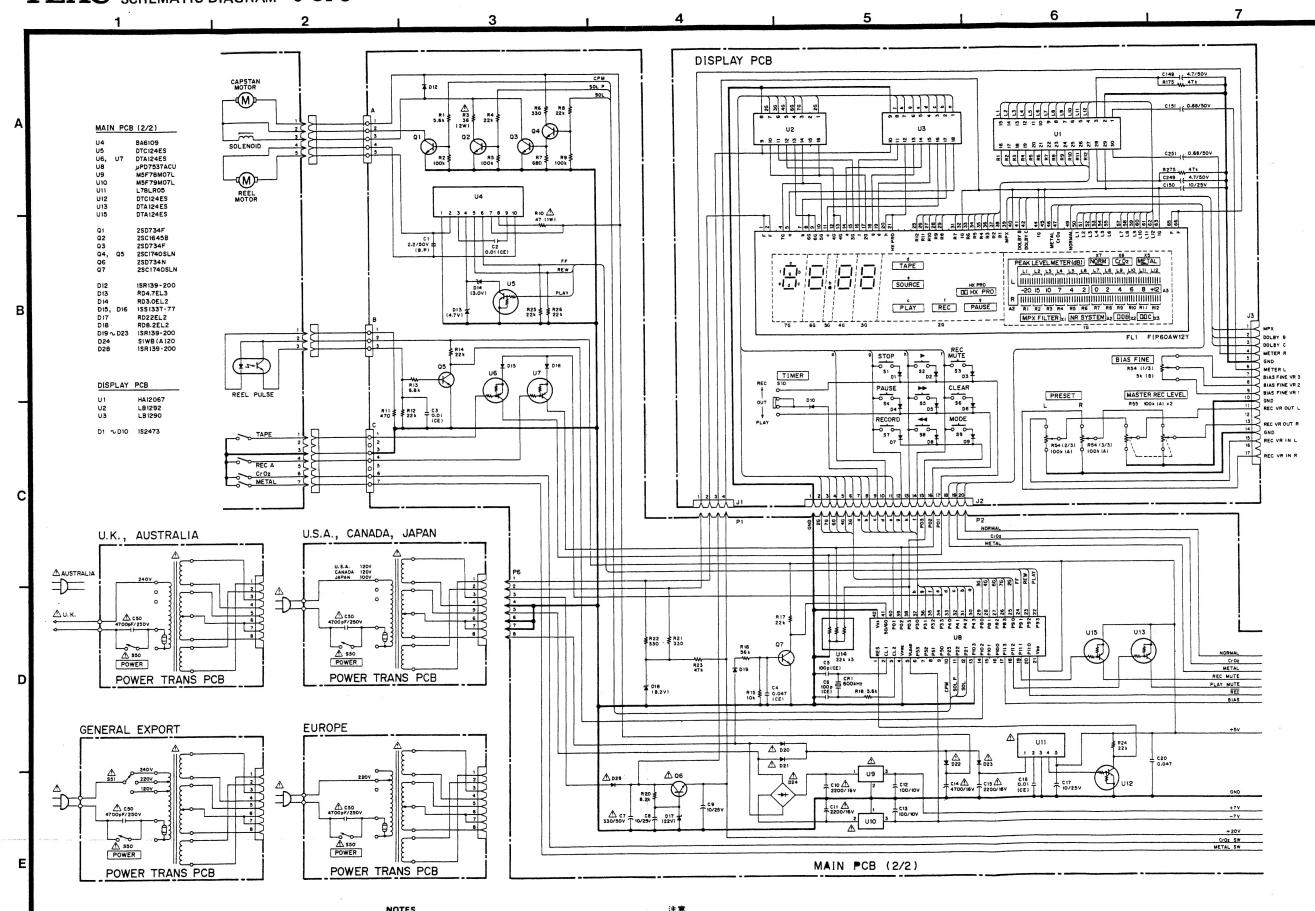
交換するときは必すティアック指定の部品を使用

1st Issue; September 1988

3. A Parts marked with this sign are safety critical components.

to the appropriate parts list and ensure exact replacement.

They must always be replaced with identical components-refer.



INSTRUCTIONS FOR SERVICE PERSONNEL

REFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPLOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

1. Resistor values are in ohms (k=kilo-ohms, M=megohms).

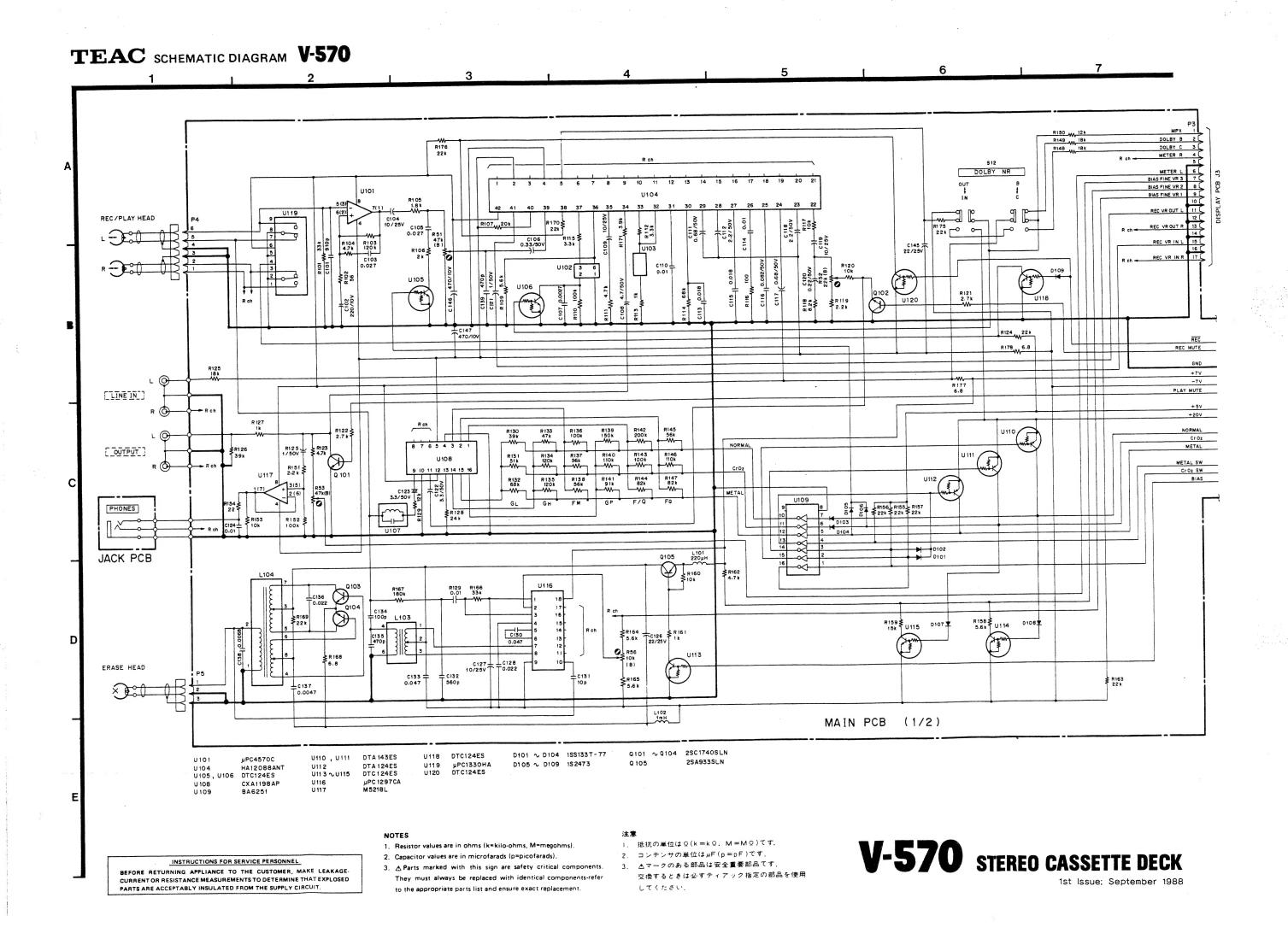
2. Capacitor values are in microfarads (p=picofarads).

3. A Parts marked with this sign are safety critical components to the appropriate parts list and ensure exact replacement

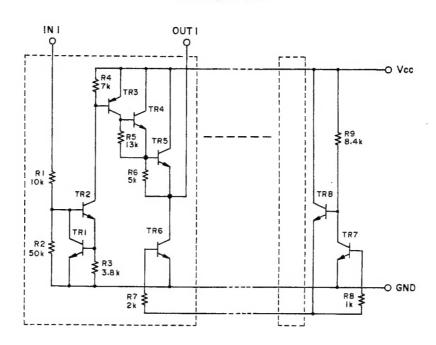
- 抵抗の単位はΩ(k=kΩ, M=MΩ)です。
- 2. コンテンサの単位は μ F(p=pF)です。 3. △マークのある部品は安全重要部品です。
- 交換するときは必ずティアック指定の部品を使用

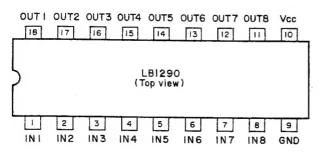
V-570 STEREO CASSETTE DECK

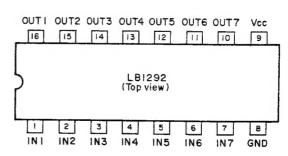
1st Issue; September 1988



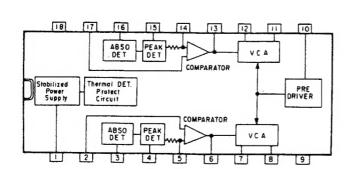
LB1290, LB1292







µPC1297CA



CXA1198AP

